Rock Island Arsenal
Shop K
(Building 68)
Rodman Avenue between Fourth Street
and East Avenue
Rock Island
Rock Island County
Illinois

HAER No. IL-20-E

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20013-7127

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HISTORIC AMERICAN ENGINEERING RECORD

ROCK ISLAND ARSENAL
SHOP K
(Building 68)
HAER No. IL-20E

Location: Rodman Avenue Between Fourth Street and East Avenue,
Rock Island Arsenal,
Rock Island,
Rock Island County, Illinois
UTM: 15.705120.4599030
Quad: Davenport East

Date of Construction: 1881-1893

Present Owner and Occupant: U.S. Army

Present Use: Small arms production

Significance: After taking command of Rock Island Arsenal in 1865, General Thomas Jefferson Rodman devised a master plan for the installation calling for the construction of ten large, Greek Revival, manufacturing shops, five on each side of the island's major east-west thoroughfare. Under construction from 1881 to 1893, Shop K was the last to be completed. With its companion facilities completed under the Rodman plan, Shop K forms a cohesive architectural statement, which, in terms of both scale and style, has no counterpart among government installations in the Midwest.

In addition to their architectural importance, the Rodman shop buildings are the administrative and technological core of Rock Island Arsenal, one of only two "old-line," nineteenth-century arseanls still in operation for munitions production. The buildings are vital for understanding the history of American ordnance development and manufacture from the Spanish American War to the present. Shop K is part of the Rock Island Arsenal National Register Historic District.

Historian: Jeffrey A. Hess, February 1985

Architectural Historian: David Arbogast, February 1985

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of erection: According to Colonel Daniel Webster Flagler, who succeeded General Thomas Jefferson Rodman as the arsenal's commandant in 1871, the building site was selected by Rodman in February 1866 (Flagler, p. 118). Excavation commenced in July 1881, and "foundations for about two-thirds of the main walls and two-thirds of the piers were put in" by June 1882 ("Report, 1882," p. 79). Subsequent work on the building was slowed by meager Congressional appropriations (Nothstein and Stephens, p. 176, 178). By June 1885, the stonework was completed up to the second story ("Report, 1885," p. 620). By June 1890, all "area walls around shop were built and coping laid" ("Report, 1890," p. 131). The building was finally finished in 1893 (Nothstein and Stephens, p. 178). A datestone above the central entrance on the south facade bears the inscription, "1881."

2. Architect: The design and construction of Shop K was supervised by four commandants: Colonel Major Daniel Webster (1881-1886); Colonel Thomas G. Baylor (1886-1888), Colonel James M. Whittemore (1889-1891), and Colonel Adelbert R. Buffington (1891-1893). The building, however, was closely patterned after Shops B and C (see HAER Nos. IL-20A, IL-20G), which were designed by General Thomas Jefferson Rodman in the late 1860s (Flagler, p. 261).

Born in Salem, Indiana in 1815, Rodman graduated from West Point in 1841 and was assigned to Allegheny Arsenal in Pittsburgh as an officer of the Ordnance Department. During the next two decades, he developed techniques for hollow casting cannon and for producing perforated propellant, which revolutionized the manufacture and use of artillery (Zabecki, pp. 55-56; Flagler, pp. 262-266).

As commandant of Watertown Arsenal near Boston from 1859 to 1865, Rodman was responsible for designing a machine shop for the installation, which was a simplified, brick version of the Greek Revival stone manufacturing shops he subsequently planned for Rock Island Arsenal (Baylies and Bahr, p. 37). Rodman assumed command of Rock Island Arsenal in 1865; he died of illness at the installation in June 1871 (Flagler, pp. 116, 261).

3. Original and subsequent owners: U.S. Army.

4. Builder, contractor, suppliers:

"Much of the manufacturing effort at the arsenal before the Spanish-American War concentrated on construction of the buildings. The rolling mill [in Shop F (see HAER No. IL-20C)] produced most of the roof trusses. . . . The foundry [in Shop E (see HAER No. IL-20H)] and machine shop [in Shop C (see HAER No. IL-20G)] made much of the machinery and building hardware such as the locks and stairways. The carpenter shop [in Shop C] made the window frames. Contract labor did some of the work while civilian employees and soldiers did other portions of the job" (Bouilly, p. 125).

5. Original plans and construction: On February 7, 1866, Rodman submitted to the War Department a schematic site plan of the arsenal, proposing the construction of ten manufacturing shops, five on each side of the arsenal's main east-west thoroughfare (later named Rodman Avenue). The plan was published in 1877 (Flagler, Plate I). It delineates the ten buildings, including Shop G, as U-shaped structures with a crossbar connecting the legs of the "U" at midpoint. According to Flagler, the configuration of the buildings was almost immediately changed. "To add strength to the walls [and] beauty to the architecture," two porticos were added to the front and to each of the sides of the buildings. Also, the crossbar between the legs of the "U" was removed "to leave the courtyard clear for teaming purposes" (Flagler, p. 123). The revised plan was published in 1877 (Flagler, Figure 1, inset on Plate I). The Rock Island Arsenal Engineering Plans and Services Division has a microfiche copy of an 1879 plan view of Shop K, signed by "Col. D. W. Flagler." A similar plan view of "Excavations for Foundations" was published in 1882 ("Report, 1882," Appendix 10, Plate I). Both these plans are identical to the schematic plan published in 1877. No original elvations have been located.

The earliest known view is a photograph published in 1898 (Tillinghast, p. 52), a copy of which is in the picture collection of the Rock Island Arsenal Historical Office in the picture collection of the Rock Island Arsenal Historical Office (see HAER Photo No. IL-20E-8). This photograph confirms Flagler's general description and the details of the 1877 plan. The building's present configuration conforms to the 1877 plan, with two exceptions. First, a three-story, stone-veneer building of identical Greek Revival architecture now connects the pavilions on Shop K's west facade to Shop H. Second, a one-story, concrete-block structure, designated as "Building 58," has been added to the north elevation of the main block,

infilling most of the courtyard. The Rock Island Arsenal Engineering Plans and Services Division has a microfiche copy of a 1943 elevation of this building, showing its relationship to Shop K.

6. Alterations and additions: At undetermined dates, the original slate roofing was removed, and the original stone entrance steps were replaced by concrete steps.

In 1917-1918, the facades of the pavilions on the building's west elevation were demolished. The original stonework from the demolished sections was reused in constructing a three-story, stone-veneered, Greek Revival structure connecting the remaining portions of the pavilions to Shop H (see HAER No. IL-20D). The new building, designated as "G-I Connection," was designed and built by Stone and Webster Company of Boston; it was completed in May 1918 (Completion Report, p. 3; see HAER No. IL-20R).

In 1943, a one-story, concrete-block structure was added to the north elevation of the main block, infilling the courtyard ("Real Property Inventory," p. 6).

In 1947, metal roofing was installed. The Rock Island Arsenal Engineering Plans and Services Division has a photograph documenting this alteration. It is captioned, "228-16881 / October 6, 1947 / Shops H, H-K Annex, and K, Buildings No. 66, 67, 68 / Looking southeast / Installation of Aluminum Roof, Goodwin System, Overly Mfg. Co., Fabricators; Holmquist & Co., Roofers."

B. Historical Context:

After assuming command of Rock Island Arsenal in August 1865, General Thomas Jefferson Rodman devised a master construction plan for the installation, which he submitted to the War Department on February 7, 1866. In its general outline, Rodman's plan called for the construction of ten large, stone, manufacturing shops, five on each side of the arsenal's main east-west thoroughfare (later named Rodman Avenue). The establishments on the south side of the avenue were called "arsenal shops," which meant they were to be devoted to the manufacture of general ordnance items. Those on the north side were called "armory shops," because they were intended for small arms production. All ten shops were designed in a Greek Revival style, which Rodman had previously used in designing a machine shop at Watertown Arsenal near Boston. Although none of the shops was completed before Rodman died of illness in June 1871, all ten were eventually finished by his nineteenth-century successors (Flagler, p. 118; Nothstein and Stephens, pp. 153-157).

Situated on the eastern end of "armory row," Shop K was the last shop to be completed. Excavation began in 1881, but because of meager Congressional appropriations, the building was not finished until 1893. Shop K was originally intended as "a finishing and stocking shop" for small arms ("Report, 1882," p. 79). To this end, the arsenal command in 1882 prepared a series of floor plans for equipping the shop with "machinery & shafting . . . for manufacturing 1500 breech loading rifles per day." (Microfiche copies of these plans are on file in the Rock Island Arsenal Engineering Plans and Services Division.) Congress however, never appropriated funds for the necessary equipment.

Shop K served as a storehouse until 1913, when the building was converted into a field artillery shop "capable of producing . . . 512 pieces of field artillery per year in addition to taking care of all repair work and making spare parts" ("Report, 1914," p. 40; Nothstein and Stephens, p. 244). At the same time, the building took over the harness-making operation previously installed in Shop I ("Report, 1914," p. 40; see also HAER No. IL-20J). After the United States entered World War I, the building's artillery operation was discontinued, and the harness shop took over virtually the entire floor space ("General Course," pp. 38-45). Electricity for the machinery was supplied by the arsenal's hydroelectric plant (see HAER No. IL-20CC). A contemporary description of the harness operation gives the following details on plant layout:

> Having started at the office, turned to the left, walked down the West Wing [of the first floor] where hand work is done, and descended the stairs at the far end of the wing, there will be found on the left the raw-hide room, where Bayonets, Scabbards, and Saddles are covered with raw-hide, which has been previously soaked in water and when dried out will shrink tightly to the wooden parts. Next to the raw-hide room will be found the hair rope department where ropes of horse hair are spun. While proceeding to the South end of the basement and into the East Wing, the piles of leather should be observed . . . .Having passed to the North end of the basement and ascended the stairs to the first floor, there will be found the cutting room, which occupies the entire first floor of this Wing. Points of particular interest in this room are: [method of using hand draw guage, clicking machine, splitting machine, creasers, beam presses.] On the right of the room is the sewing machine room, where the Campbell Lock-stitch Machines are located. . . .The stairs, leading to the second floor, are located beyond the office on the left of the aisle. On the second floor of the West

> Wing is the [Harness] Assembling Department. . . .At the far end of the Wing is the Saddlers' School. On the third floor of this Wing is the packing room ["Course of General Instruction," p. 38]

In 1920, the harness-making operation was transferred from Rock Island Arsenal to Jeffersonville, Indiana; Shop K was cleared of its harness machinery and converted into a storehouse for small arms production equipment received from a number of government installations on the East Coast (Nothstein and Stephens, pp. 273-274). The building remained a storage facility until about 1943, when it was reopened as a machine gun plant with a combination of new and reconditioned, World-War-I equipment. Unlike the belt-driven equipment of the World-War-I, small arms production operation, all of the newly installed machinery was individually motorized. In terms of general layout, the basement contained a proof room for test-firing machine guns, the first floor primarily housed profilers, lathes, and milling machines (see HAER Photo No.IL-20E-9) for shaping a variety of machine gun components, and the second floor was largely given over to production lines for partial and final assembly ("History Artillery Vehicle Department," n.p.). Although its machinery has been modernized since World War II, Shop K has remained a small arms plant to the present time. Shop K has been designated as "Building 68" at least since World War II ("History Artillery Vehicle Department," n.p.; for additional documentation, see HAER No. IL-20).

Prepared by: Jeffrey A. Hess
MacDonald and Mack Partnership
February 1985

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: The building is a massive, late Greek Revival style, U-plan, limestone structure. It is two-and-one-half stories above a basement, with a gabled roof sheltering an attic. It forms part of a symmetrical set of five buildings along the north side of Rodman Avenue, which is mirrored by a matching set on the south side.

2. Condition of fabric: The building is well-maintained and is in good condition.

B. Description of Exterior:

1. Overall dimensions: The main (south) block of the building (HAER Photo Nos. IL-20E-1 and IL-20E-4) measures 210' x 60' (19 bays on

the south elevation and 9 bays on the north elevation). Two wings (HAER Photo Nos. IL-20E-2 and IL-20E-3), each measuring 240' (28 bays on their exterior elevations and 22 bays on their courtyard elevations) x 60' (5 bays on their north elevations) stretch north from the east and west ends of the main block. Near each end of the outer, long elevations of the wings are projecting pavilions measuring 60' (5 bays) and extending 15' (1 bay) from the wing elevations. The building is two-and-one-half stories tall with a full basement and attic.

2. Foundations: Coursed, rock-faced ashlar limestone measuring 3'-0" thick below a dressed ashlar limestone water table.

3. Walls: Coursed, rock-faced ashlar limestone (HAER Photo Nos. IL-20E-1, IL-20E-2, IL-20E-3, and IL-20E-4) decreasing in thickness by 6" with each story. Colossal rock-faced ashlar limestone pilssters (HAER Photo Nos. IL-20E-1, IL-20E-2, IL-20E-3, and IL-20E-4) rising from the water table to the entablature divide the elevations into a regular bay system. The dressed limestone entablature (HAER Photo Nos. IL-20E-1, IL-20E-2, IL-20E-3, and IL-20E-4) carriea a projecting dresaed limestone cornice. The pedimented gable ends (HAER Photo Nos. IL-20E-1, IL-20E-2, and IL-20E-3) are rock-faced aahlar limestone with dressed limestone cornices. There is a carved limestone block (HAER Photo No. IL-20E-4) above the central entranceof the south elevation bearing the date 1881.

4. Structural systems: Limestone bearing wall. Coursed, rock-faced limestone piers 20' on-center in the basement support fluted Doric cast-iron columns (HAER Photo Nos. IL-20E-5 and IL-20E-6) on the first and second floors. First, second, and attic floor systems are wrought iron stringers and joists with brick vaulting between. The roof system is iron Fink trusses.

5. Porches: Porches (HAER Photo Nos. IL-20E-1, IL-20E-2, IL-20E-3, and IL-20E-4) are located at the center bays ofthe pavilions (except abutting Building 67), the north ends of the wings, the third bays from each end of the south elevation of the main block, snd the center of the main block. Typical porches consist of poured concrete steps without railings, on rock-faced ashlar limestone base walls.

6. Light wells: Across the south elevation is a narrow window well (HAER Photo Nos. IL-20E-1 and IL-20E-4) with rock-faced ashlar limestone walls to grade surmounted by a black steel pipe railing.

7. Chimneys: Riaing to above the eaves line near the north end of the east elevation of the west wing, round sheet metal flues (HAER Photo No. IL-20E-3) spring from within two basement window openings.

8. Openings:

a. Doorways: Principal doorways (HAER Photo Nos. IL-20E-1, IL-20E-2 and IL-20E-3) are centered in the northeast and southeast pavilions, the wing ends, the third bays from each end of the south elevation, and the first and sixteenth bays from the south end of the courtyard elevations of the wings. Each has a rock-faced limestone segmental-arched hesd with a rock-faced keystone, and rock-faced limestone jambs with large semi-circulsr base blocks projecting into the doorway. Most of the original limestone sill blocks have been replaced with poured concrete sills. All except the west wing doorways are without doors. The two courtyard doorways each contain a pair of originsl two-light over single panel wood doors with trsnsom and the north doorway contains a set of three identical doors and a transom similar to that of the doorways. Narrower doorways (HAER Photo Nos. IL-20E-1 and IL-20E-4) are located in the center of the south elevation of the main block and in the north basement elevations of the northeast and northwest pavilions. These openings are identical to those of the principal doorways, differing only in width. The center doorway of the south elevation is missing its doors. The pavilion doorways contain pairs of original wood doors (HAER Photo No. IL-20E-7) filling the arch. On their exterior faces they are vertical, tongue-and-groove, board and on their interior faces they are diagonal, tongue-and-groove board. In the seventh bsy from the south of the courtyard elevations of the wings are doorways matching the width of standard window openings. They have ashlar limestone jambs and dressed limestone sill and lintel blocks, similar to the adjacent window openings, differing only in length. The east doorway is missing its door and the west doorway contains a single door and transom similar to those of the other west wing doorways. The principal doorways of the two west pavilions have been covered by later building additions. In the basement, the bay north of the northeast pavilion, originally a window opening, now contains a four-panel wood door.

b. Windows: Typical first- and aecond-floor window openinga (HAER Photo Nos. IL-20E-1, IL-20E-2, IL-20E-3, and IL-20E-4) contain six-over-six, double-hung, wood sash, and have rock-faced limestone jambs, cut limestone sills and flat lintels. Paired window openings (HAER Photo Nos. IL-20E-1, IL-20E-2, and IL-20E-3) above the primary doorways have segmental-arched, rock-faced limestone voussoirs and keystones. Above the narrow, center doorways on the south and north main block elevations are similar window openings (HAER Photo Nos. IL-20E-1 and IL-20E-4) containing pairs of four-over-four double-hung, wood

sash. Attic window openings (HAER Photo Nos. IL-20E-1, IL-20E-2, and IL-20E-3) contain small, single-light, pivoting, wood sash and are typically arranged in pairs of small openings in the building entablature with sets of four centered in the gable ends and sets of three in the centers of the south and north main block elevations. These window openings have rock-faced limestone jambs and sills and lintels formed by the entablature and frieze. The gable ends contain paired window openings (HAER Photo Nos. IL-20E-1, IL-20E-2, and IL-20E-3) with rock-faced limestone jambs, segmental-arched, rock-faced limestone arches and keystones and dressed limestone sills. The basement window openings (HAER Photo Nos. IL-20E-1, IL-20E-2, IL-20E-3, and IL-20E-4) originally contained three-over-three, double-hung, wood sash in rock-faced limestone jambs, lintels formed by the water table, and flat dressed limestone sill blocks. The basement and first-floor window openings of the west elevation of the west wing have been filled with concrete block. The basement window openings of the north elevation of the main block have been filled with brick. All surviving sash are painted white.

c. Other openings: Near the south end of the exterior east and west walls are single limestone openings at the basement level with semi-circular arches having rock-faced voussoirs and keystones, rock-faced jambs, and dressed sill blocks. The west opening is filled with a concrete steam tunnel and the east is filled with rock-faced ashlar limestone.

9. Roof:

a. Shape, covering: The roof (HAER Photo Nos. IL-20E-1, IL-20E-2, and IL-20E-3) is a cross-gable form covered with standing seam metal roofing.

b. Cornice, eaves: The cornice and eaves (HAER Photo Nos. IL-20E-1, IL-20E-2, IL-20E-3, and IL-20E-4) are the original cut limestone in a Classical molded style. The interior metal gutter system is tied to exterior metal leaders which lead to an underground drainage system.

c. Ventilators: Along the primary ridges of the roof twelve large sheet metal ventilators (HAER Photo Nos. IL-20E-1, IL-20E-2, and IL-20E-3) are regularly spaced with two on the main block ridge and five on the wing ridges.

10. Ancillary buildings: In the courtyard, and connected to the north wall of the main block, is Building 58, a surface treatment building (HAER Photo No. IL-20E-3). It is a large, one-story, one-

room building with a low, double-sloped, gable roof covered with asphalt roll roofing and having a nortb-south ridge. Tbe minimal east and west eaves carry metal gutters with metal leaders at regular intervals. The walls are concrete block. The east and west elevations have sixteen regular bays and the north elevation has three bays. Centered in the east and west bays of tbe north elevation and in all the bays of the side elevations is industrial, steel, window sash arranged in sets of three nine-light, fixed sash. In the center of the north elevation is an overbead door flanked by single steel pedestrian doors baving a four-light, steel sash over a single steel panel with a nine-light, fixed, steel, transom above. Along the ridge of the roof is a long skylight formed by corrugated fiberglass panels.

C. Description of Interior:

1. Floor plans: The building has open floor plans.

2. Stairways: There are four open (in the process of being enclosed) U-plan stairways with intermediate landings rising from the basement to the attic. These are located in each of the pavilions. They are cast iron in curvilinear Italianate style forms with open risers and open, decorative railing supports and no newel posts. The railings are used at each of the main floor landings as well as with the stairs. The handrails are dark varnished wood and have iron pipe railings added above them to meetmodern safety standards. The bottom flights of stairs in the basement are limestone blocks.

3. Flooring: Basement snd first-story flooring (HAER Photo No. IL-20E-7) is poured concrete with a sealer applied to it. The second story has wood flooring (HAER Photo Nos. IL-20E-5 and IL-20E-6) with a clear varnish finish, to which is being added plywood and linoleum tile. The attic has wood flooring with a clear varnish finish. Along the center of the attic floor is a set of steel plates forming a track.

4. Wall and ceiling finishes: Outer basement walls (HAER Photo No. IL-20E-7) and interior piers are painted rock-faced ashlar limestone. Interior partition walls are painted concrete block, plaster, and wire cage. The ceiling (HAER Photo No. IL-20E-7) is exposed and painted iron joists and stringers and brick vaulting.

Outer first-floor walls are painted rock-faced limestone. The cast-iron columns are exposed and painted. Partition walls are painted concrete block, painted gypsum board, painted plaster, and wire cage. The ceiling is exposed and painted iron beams and brick vaulting.

The outer second-floor walls (HAER Photo Nos. IL-20E-5 and IL-20E-6) are painted rock-faced ashlar limestone. The cast-iron columns (HAER Photo Nos. IL-20E-5 and IL-20E-6) are exposed and painted. Partition walls are painted gypsum board (HAER Photo No. IL-20E-6), demountable partitions and wire cage. Painted iron beams and brick vaulting form the ceiling (HAER Photo Nos. IL-20E-5 and IL-20E-6).

The outer attic walls are unpainted rock-faced ashlar limestone. A structural tile wall serves as a fire break at the west end of the central portion of the main block. Other partition walls are painted, vertical, beaded, tongue-and-groove boarda; wire cage; and open, vertical, unpainted wood slat walls. The ceiling is the open wood deck and rafters and purlinsof the roof construction.

5. Openings:

   a. Doorways and doors: The interior has no original doorways.

   b. Windows: There are no window casings. Window openings (HAER Photo Nos. IL-20E-5, IL-20E-6, and IL-20E-7) are formed by the adjacent limestone.

6. Hardware: The original doors, discussed above retain heavy cast-brass plate hinges and elaborate door pulls incorporating "RIA" in their casting. Original window hardware includes sash cords, pulleys, weights, and ornate aash lifts.

7. Mechanical equipment:

   a. Heating, air conditioning, ventilation: The building is heated by steam radiators (HAER Photo Nos. IL-20E-5 and IL-20E-6) from a central heating plant (Building 227). There is no air conditioning. Ventilation is provided by opening the window sash.

   b. Lighting: Artificial illumination is by means of fluorescent electrical fixtures (HAER Photo No. IL-20E-5) on all floors. No evidence remains of original artificial lighting systems.

   c. Plumbing: No original plumbing fixturessurvive.

   d. Elevators: Two original freight elevators survive, albeit in a modernized form.

   e. Machinery: All machinery was removed from the building prior to the current renovation effort.

D. Site:

1. General setting and orientation: The building anchors the northeast corner of the set of ten stone shops. It is set on the northwest corner of Rodman Avenue, the arsenal's principal street, and East Avenue. West of the building is Building 66, another small arms assembly building. Connecting the two buildings is Building 67, the Shop Office. Attached to the west elevation of the west wing is Building 72, a small arms assembly building. Attached to the north elevation of the main block is Building 58, a surface treatment building (HAER Photo No. IL-20E-3) which virtually fills the courtyard. To the north of the building runs North Avenue. The relatively level site slopes gently to the north.

Prepared by: David Arbogast
Architectural Conservator
February 1985

PART III. SOURCES OF INFORMATION

A. Original Architectural Drawings:

The Rock Island Arsenal Engineering Plans and Services Division has microfiche copies of the following floor plans:

"[Floor Plan for Shop] K," September 29, 1979, microfiche no. R30000013. Shows original building configuration; identical to plan published in 1877 for earlier arsenal shops (Flagler, Figure 1, inset on Plate I).

"Arrangement of Machinery & Shafting in Milling Shop / Attic Floor / Shop K, " August 1882, microfiche nos. R30000014-R30000015. Shows proposed layout for small arms production equipment that was never installed.

"Arrangement of Machinery & Shafting in Finishing Shop for Barrels / First Floor, August 1882, microfiche nos. R30000018- R30000019. Shows proposed layout for small arms production equipment that was never installed.

"Arrangement of Machinery & Shafting, in Finishing Shop for Barrels / Second Floor, August 1882, microfiche nos. R30000020- R30000021. Shows proposed layout for small arms production equipment that was never installed.

"Building No. 58, Shop K Courtyard / Elevations," February 5, 1942, microfiche no. R30000030-R30000031. Shows construction details for addition to north facade of the building's main block.

B. Early Views:

The Rock Island Arsenal Historical Office has the following early photographs:

Photograph of the south facade, captioned, "Shop K. Typical of the Eight Regular Shops" (see HAER Photo No. IL-20E-8). Originally published in 1898 (Tillinghast, p. 52), view documents original construction.

Photograph of .30-caliber, Browning Machine Gun production equipment, captioned, "490-7669 January 21, 1943 / Shop K, Bldg. #68. Second Floor, East Wing; Parts Manufacture, B[rowning] M[achine] C[un], M1917A1, M1919A4, M1919A5" (see HAER Photo No. IL-20E-9).

C. Bibliography:

1. Primary and unpublished sources:

Baylies, Libby and Bahr, Betsy. "Historic American Buildings Survey of the United States Materials and Mechanics Research Center, Watertown, Massachusetts." 1982. HAER No. MA-20, HABS/HAER Collection, Prints and Photographs Division, Library of Congress. Discusses Rodman's architectural work at Watertown Arsenal.

"Ceneral Course of Instruction for Officers Assigned to Rock Island Arsenal," Rock Island, 1918. Rock Island Historical Office. Provides overview of harness-making operation during World War I.

Hess, Jeffrey A., and Mack, Robert C. "Historic Properties Report Rock Island Arsenal, Rock Island, Illinois". Prepared by MacDonald and Mack Partnership, and Building Technology Incorporated for the Historic American Buildings Survey/Historic American Engineering Record, National Park Service, U.S. Department of the Interior, 1985. The report, with accompanying inventory cards, is filed as field records in the Prints and Photographs Division, Library of Congress, under HAER No. IL-20.

"History Artillery Vehicle Department, 1939-1942," vol. 3. Rock Island Arsenal Historical Office. Describes reopening of building as a small arms plant for World War II.

Real Property Cards, Engineering Plans and Services Division, Rock Island Arsenal. Briefly describes building's structural characteristics and provides sketchy history of maintenance operations.

"Real Property Inventory," computer printout, March 31, 1982. Rock Island Arsenal Engineering Plans and Services Division. Provides construction date for Building 58.

2. Secondary and published sources:

Bouilly, Robert. "Arsenal Island." Joined by a River: Quad Cities, ed. Frederick I. Anderson. N. pl.: Lee Enterprises, Incorporated, 1982. Excellent historical analysis of the arsenal's development to about 1910, written by a historian in the Rock Island Arsenal Historical Office.

Completion Report Covering All Construction Projects Accomplished Under Supervision of the Construction Division, U.S. Army at Rock Island Arsenal. Rock Island Arsenal, 1919. Rock Island Arsenal Historical Office. Discusses planning and construction of connecting building between Shops H and K.

Flagler, D[aniel] W[ebster]. A History of the Rock Island Arsenal from Its Establishment in 1863 to December 1876. Washington, D.C.: Covernment Printing Office, 1877. Most detailed discussion of general site planning for arsenal's shops.

Nothstein, Ira O. and Stephens, Clifford W. A History of Rock Island Arsenal from Earliest Times to 1954. Rock Island: U.S. Army, Rock Island Arsenal, 1965. 3 vols. Rock Island Arsenal. The best account of the arsenal's general operations and construction, with specific references to Shop K's manufacturing responsibilities.

"Report of the Chief of Ordnance, 1882, 1885, 1890." House Documents, vols. 2095, 2374, 2836. Washington, D.C.: Government Printing Office, 1882, 1885, 1890. Progress reports and descriptions of construction.

Tillinghast, B. F. Rock Island Arsenal: In peace and in War. Chicago: The Shepard Company, 1898. Reproduces photograph° showing building's original construction (see HAER Photo No. 1L-20E-8).

Zabecki, David T. "Father of the Rock Island Arsenal." Field Artillery Journal, 49 (January / February, 1951), 55-56. Discusses Rodman's pioneering work in cannon and propellant design.

D. Likely Sources Not Yet Investigated:

Record Group 156 at the National Archives contains correspondence on

the construction and operation of Rock Island Arsenal from 1871 to 1903. This material is also available on 216 reels of microfilm at the Browning Museum, Rock Island Arsenal.

PART IV. PROJECT INFORMATION

This project was part of a program initiated through a memorandum of agreement between the National Park Service and the U.S. Department of the Army. Stanley J. Fried, Chief, Real Estate Branch of Heaquarters DARCOM, and Dr. Robert J. Kapsch, Chief of the Historic American Buildings Survey/Historic American Engineering Record, were program directors. Sally Kress Tompkins of HABS/HAER was program manager, and Robie S. Lange of HABS/HAER was project manager. Building Technology Incorporated, Silver Spring, Maryland, under the direction of William A. Brenner, acted as primary contractor, and MacDonald and Mack Partnership, Minneapolis, was a major subcontractor. The project included a survey of historic properties at Rock Island Arsenal, as well as preparation of an historic properties report and HABS/HAER documentation for 38 buildings. The survey, report, and documentation were completed by Jeffrey A. Hess, historian, Minneapolis; Barbara E. Hightower, historian, Minneapolis; David Arbogast, architectural historian, Iowa City, Iowa; and Robert C. Mack, architect, Minneapolis. The photographs were taken by Robert A. Ryan, J Ceronie, and Bruce A. Harms of Dennett, Muessig, Ryan, and Associates, Ltd., Iowa City, Iowa. Drawings were produced by John Palmer Low, Minneapolis.